

**POSITION DEPENDENT RECOGNITION OF  
GNN NUCLEOTIDE TRIPLETS BY ZINC FINGERS**

ABSTRACT OF THE DISCLOSURE

5           The specificity of binding of a zinc finger to a triplet or quadruplet nucleotide  
target subsite depends upon the location of the zinc finger in a multifinger protein and,  
hence, upon the location of its target subsite within a larger target sequence. The present  
disclosure provides zinc finger amino acid sequences for recognition of triplet target  
subsites having the nucleotide G in the 5'-most position of the subsite, that have been  
10       optimized with respect to the location of the subsite within the target site. Accordingly,  
the disclosure provides finger position-specific amino acid sequences for the recognition  
of GNN target subsites. This allows the construction of multi-finger zinc finger proteins  
with improved affinity and specificity for their target sequences, as well as enhanced  
biological activity.